

65080" T449350

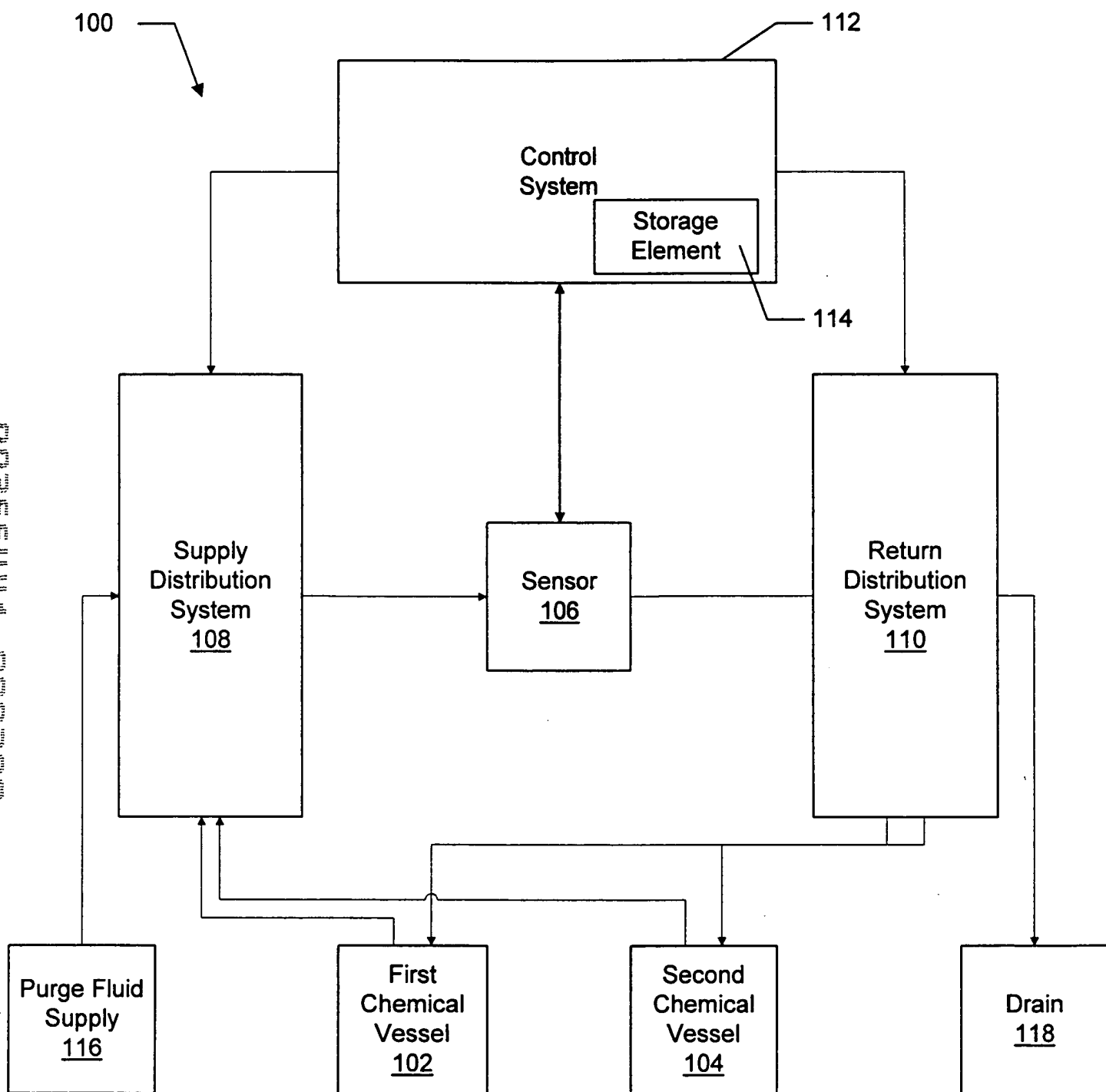


FIG.1

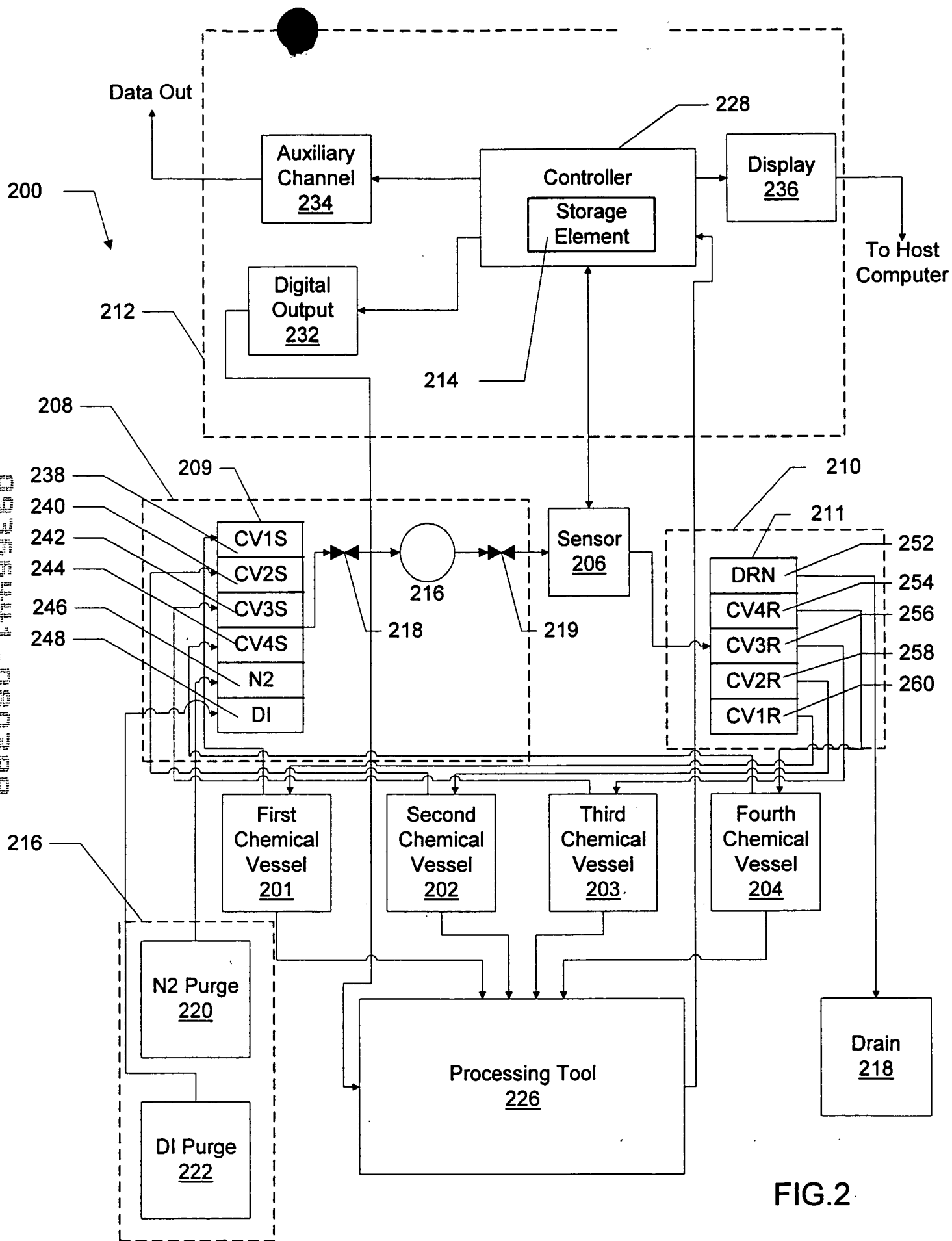


FIG.2

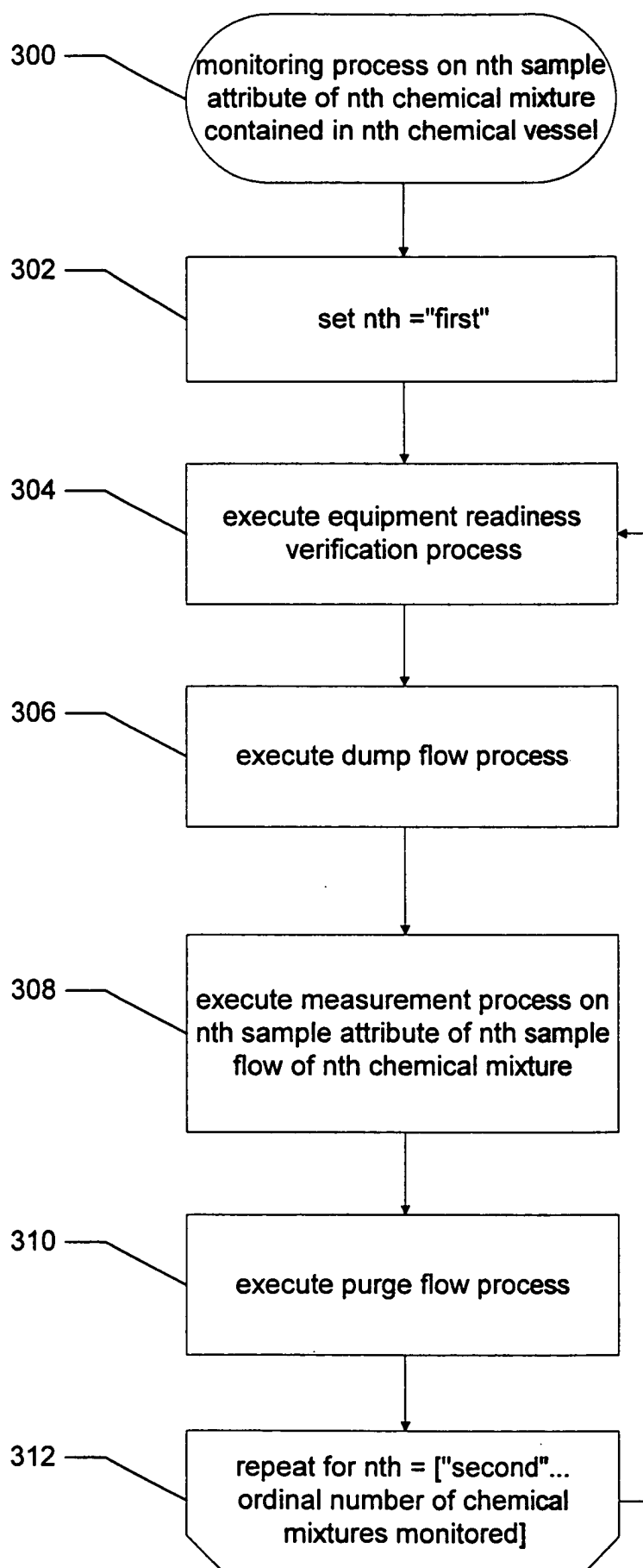


FIG. 3

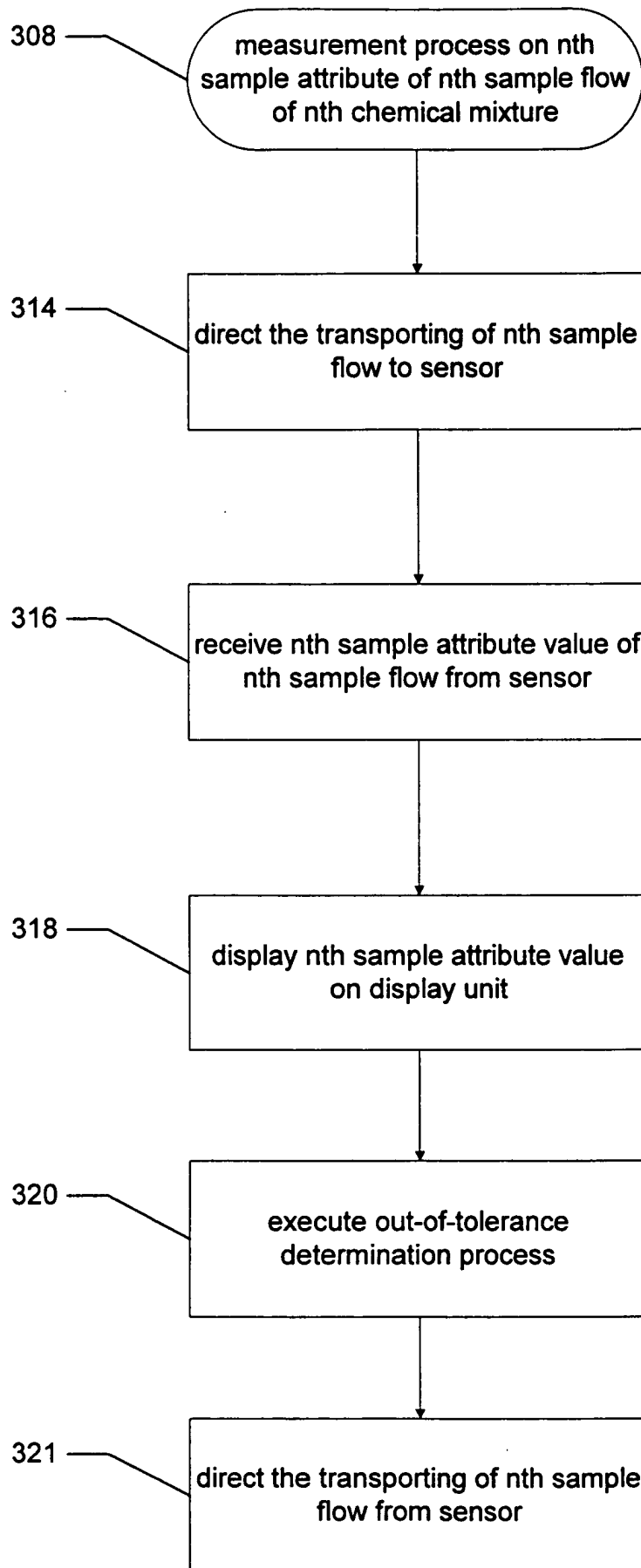


FIG. 4

656080" T4799660

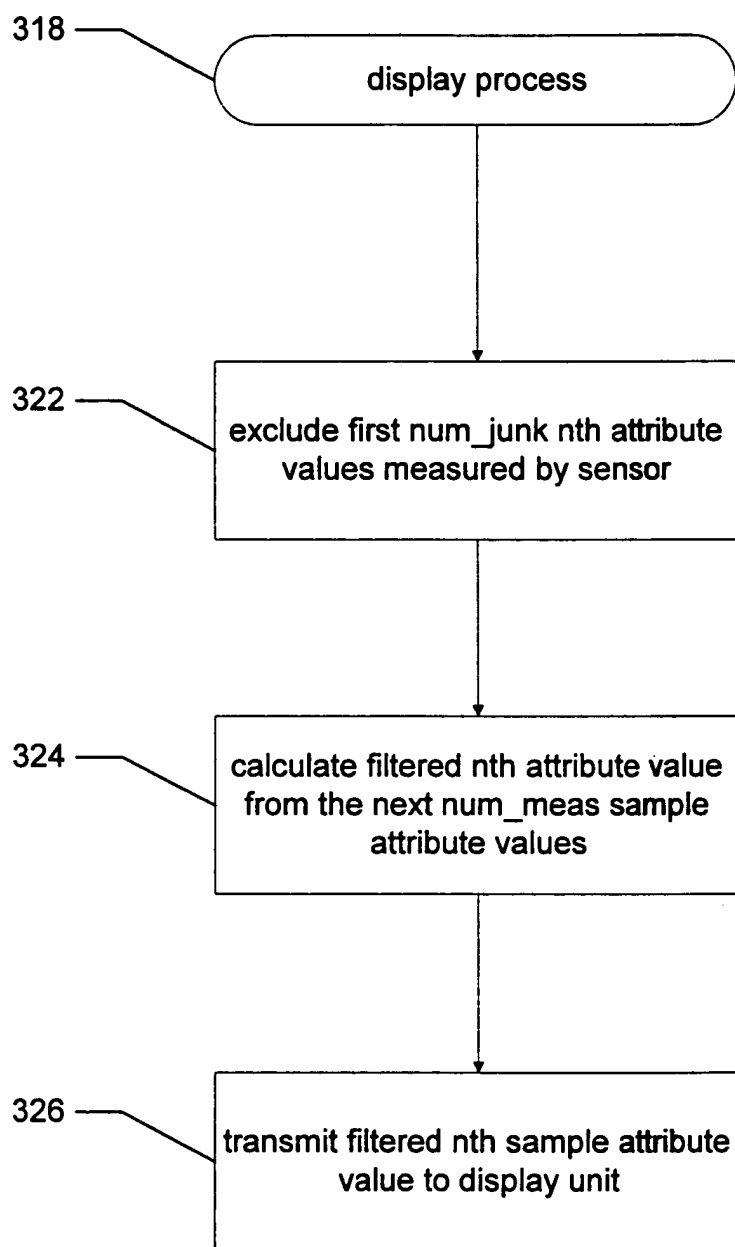


FIG. 5

```

graph TD
    320([out-of-tolerance determination process]) --> 328{is nth sample attribute value outside of primary nth sample attribute value range?}
    328 -- No --> 330[exit out-of-tolerance determination process]
    328 -- Yes --> 332[generate out-of-tolerance signal]
    332 --> 334[increase portion of total cycle time occupied by measuring nth sample flow]
    334 --> 336{is nth sample attribute value outside of secondary nth sample attribute value range?}
    336 -- No --> 338[exit out-of-tolerance determination process]
    336 -- Yes --> 340[transmit inhibit signal to processing tool]

```

FIG. 6

FIG. 6

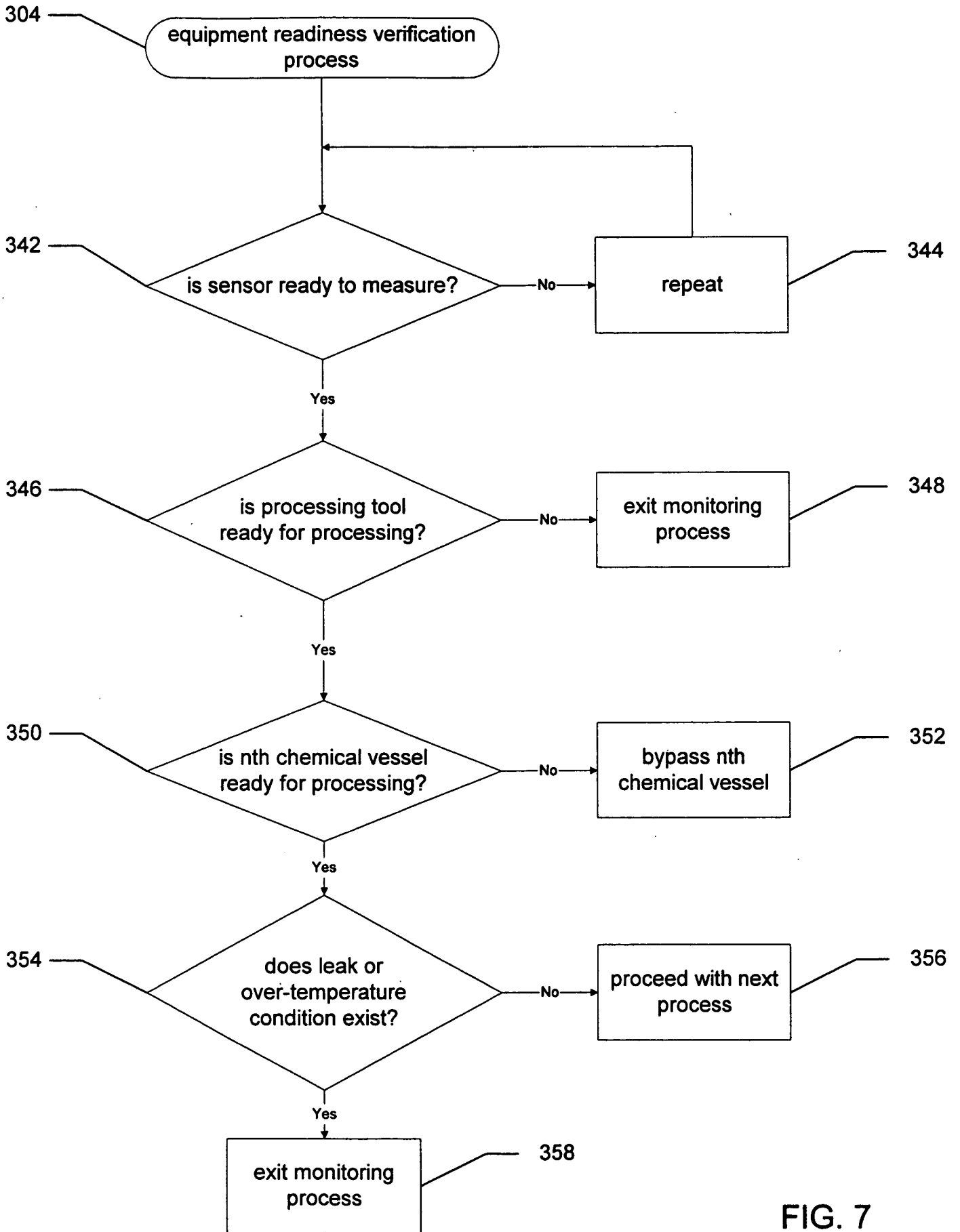


FIG. 7

```
graph TD; 306([dump flow process]) --> 360[direct the transporting of nth sample flow of nth chemical mixture from nth chemical vessel to sensor]; 360 --> 362[suppress display of measured attribute values of nth sample flow]; 362 --> 364[direct the transporting of nth sample flow from sensor to drain];
```

FIG. 8

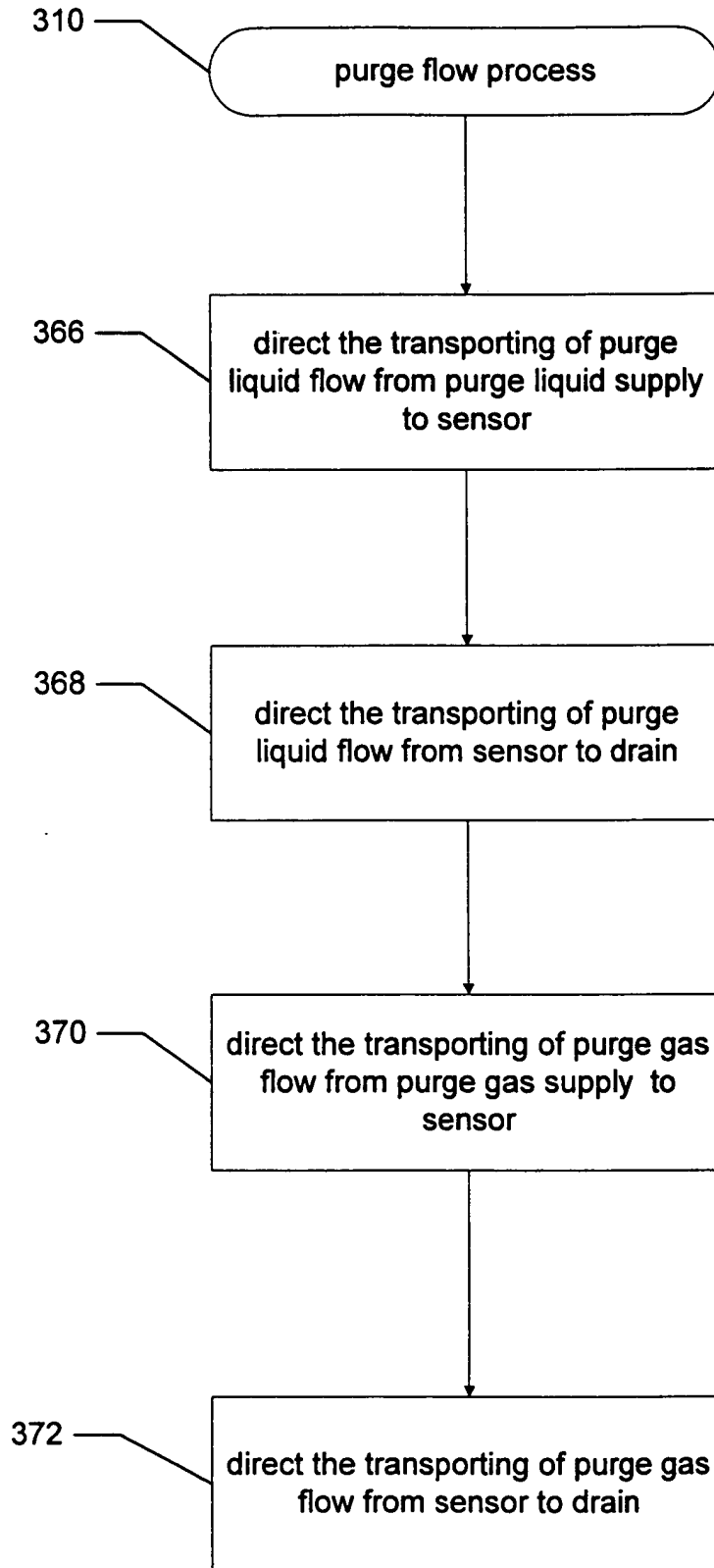


FIG. 9

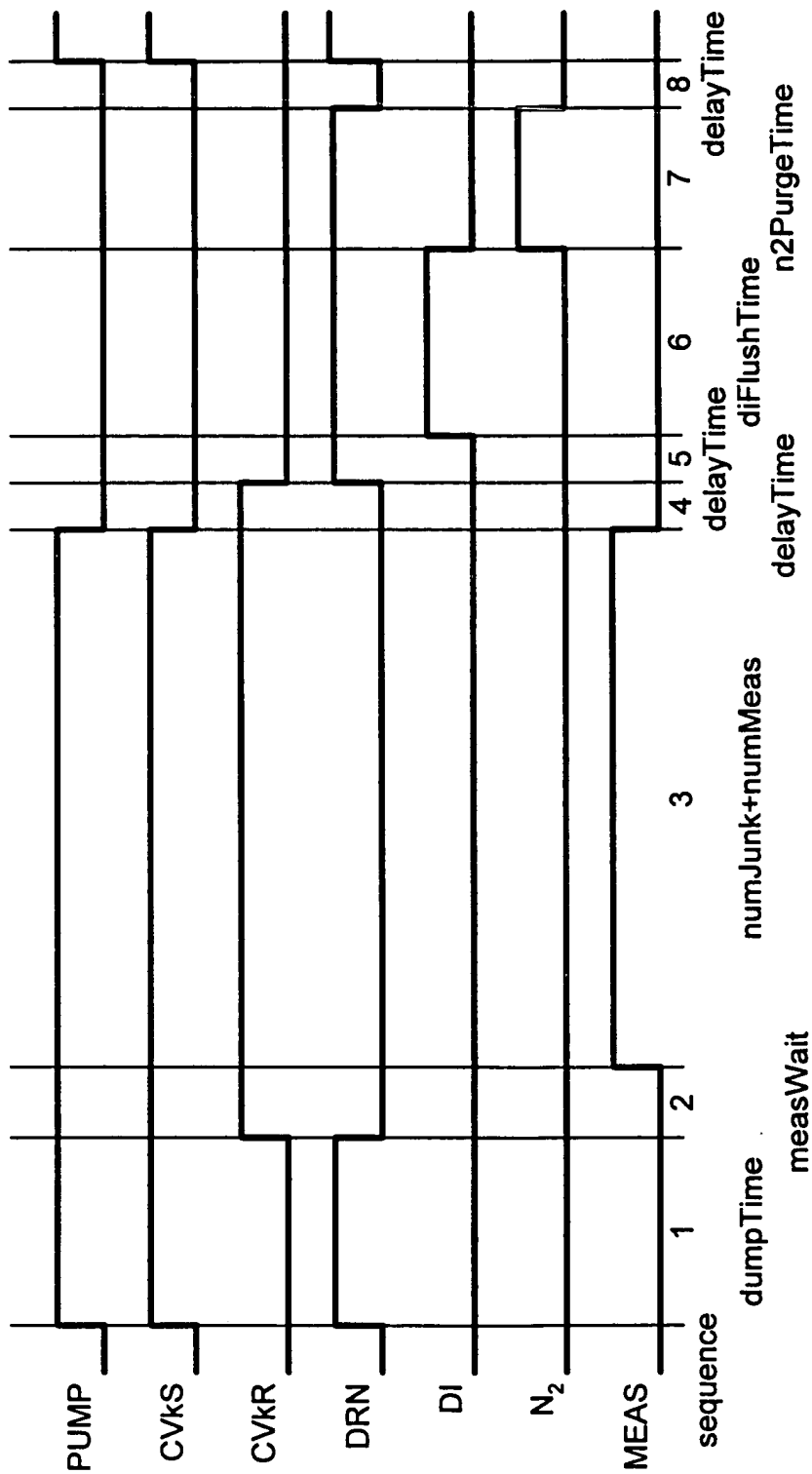


FIG. 10

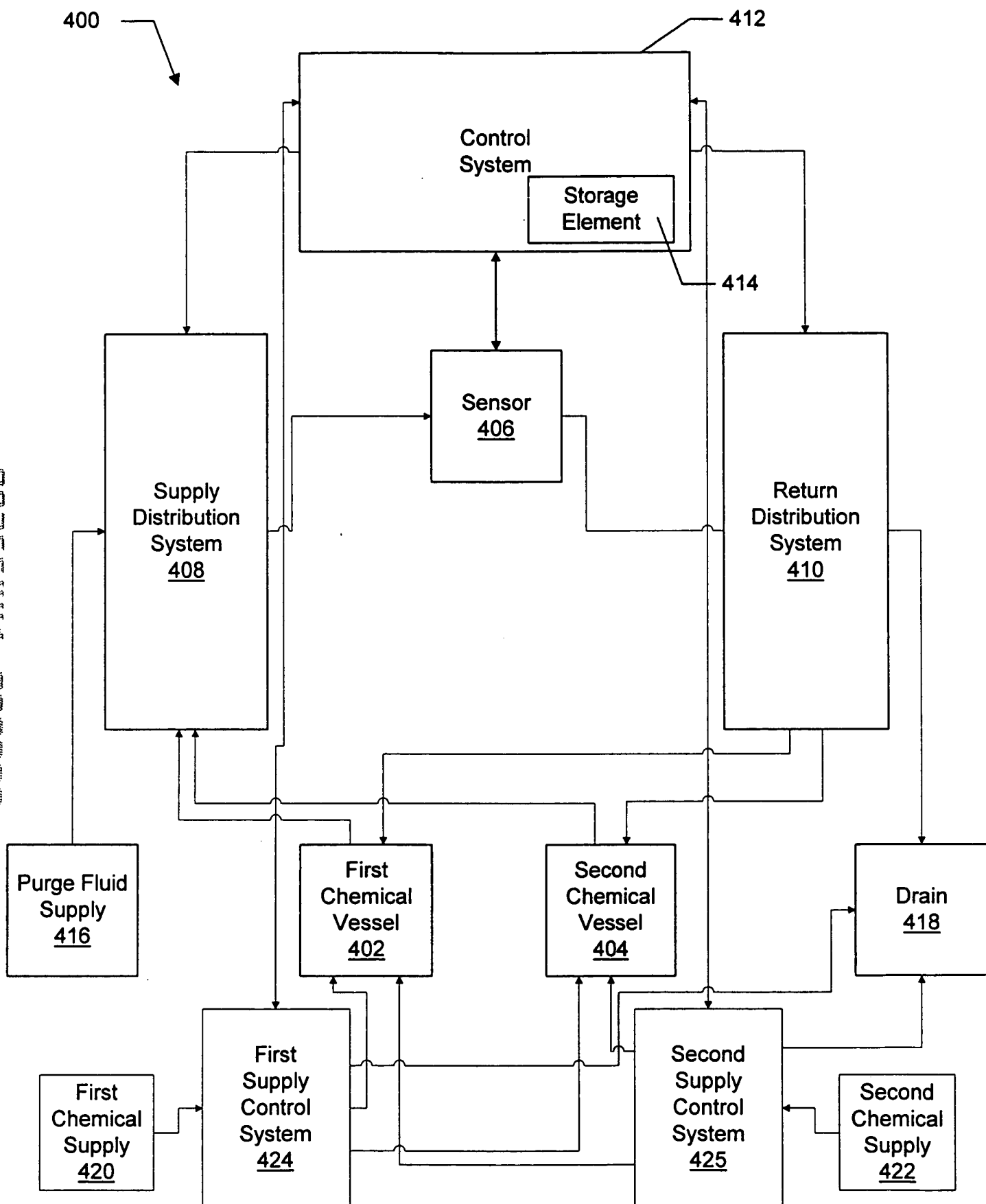


FIG.11

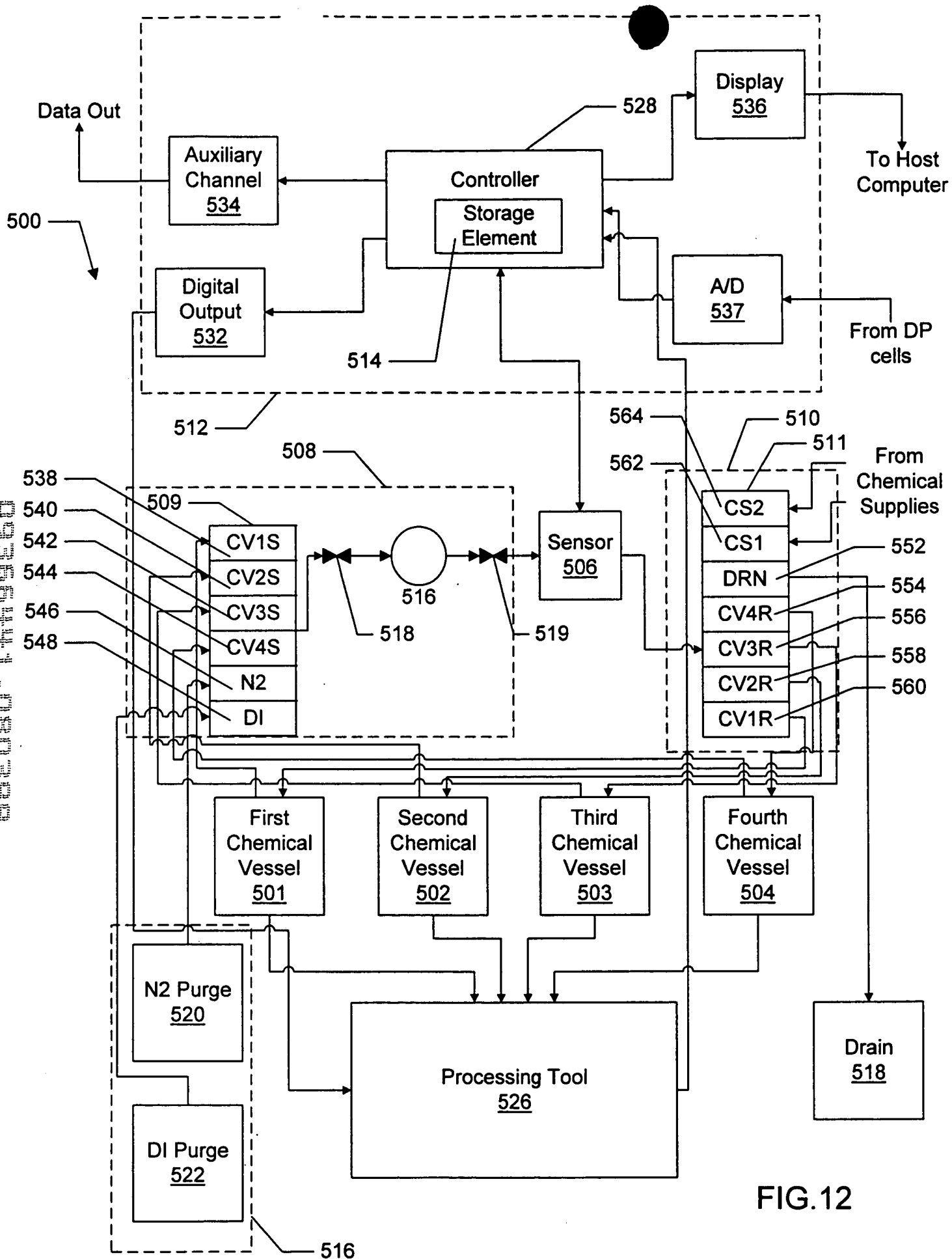


FIG.12

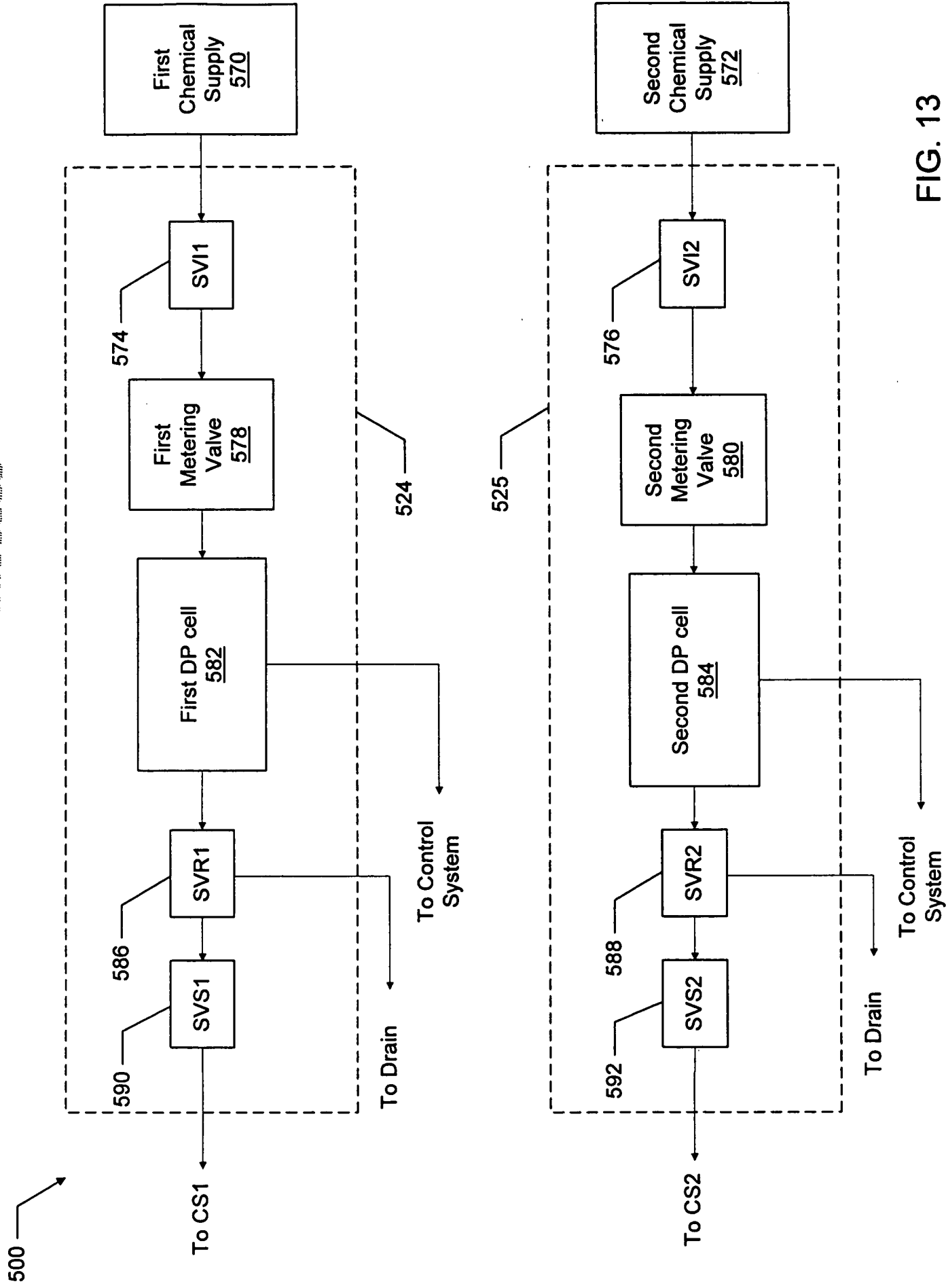


FIG. 13

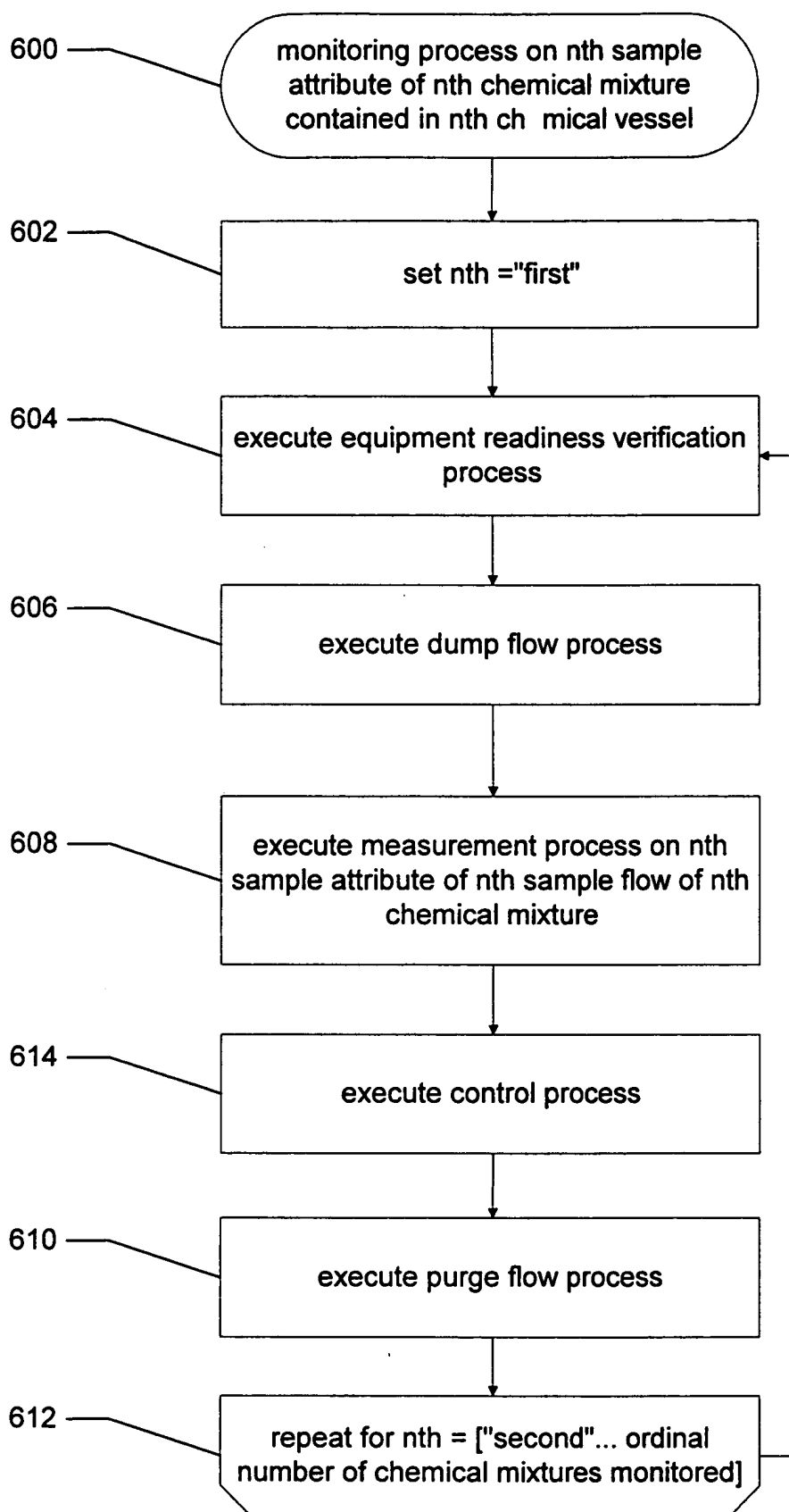


FIG. 14

653030 "T-499660

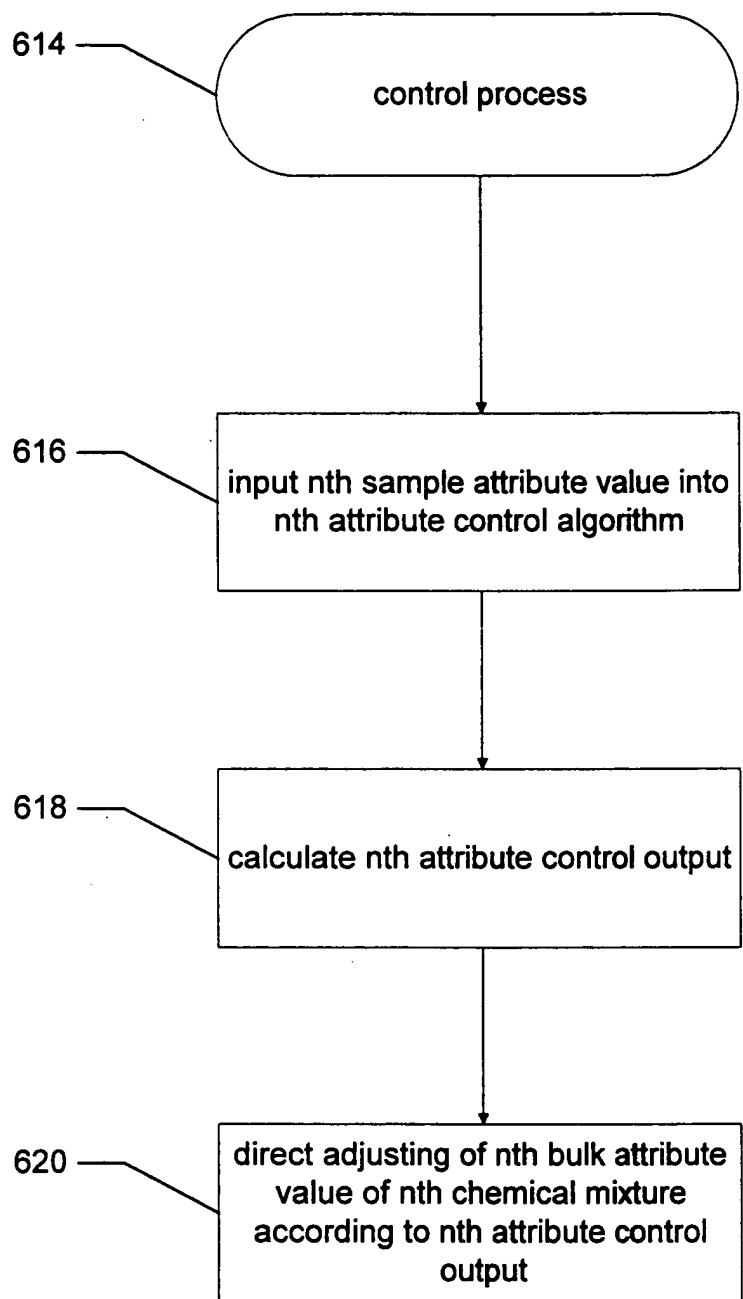


FIG. 15

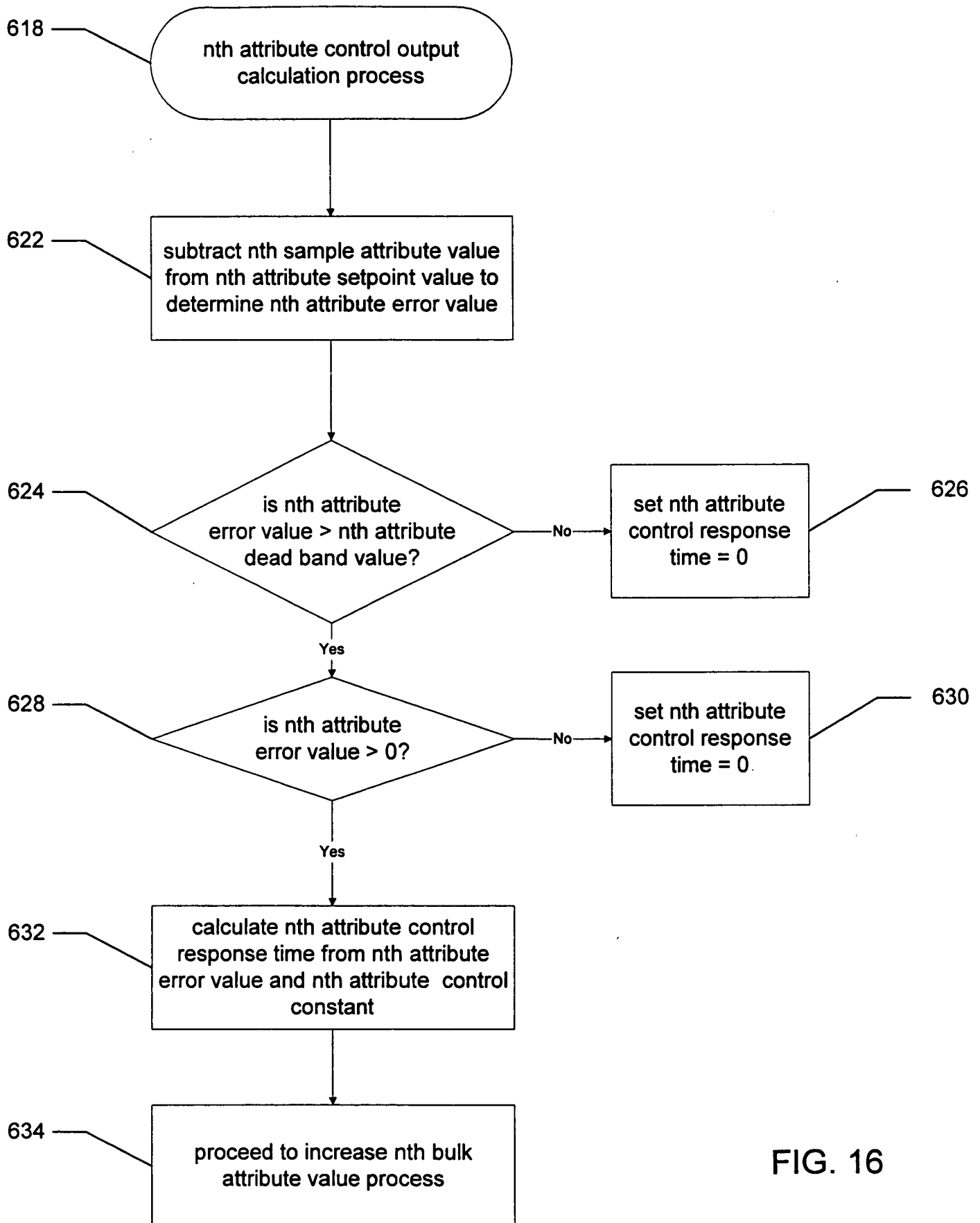


FIG. 16

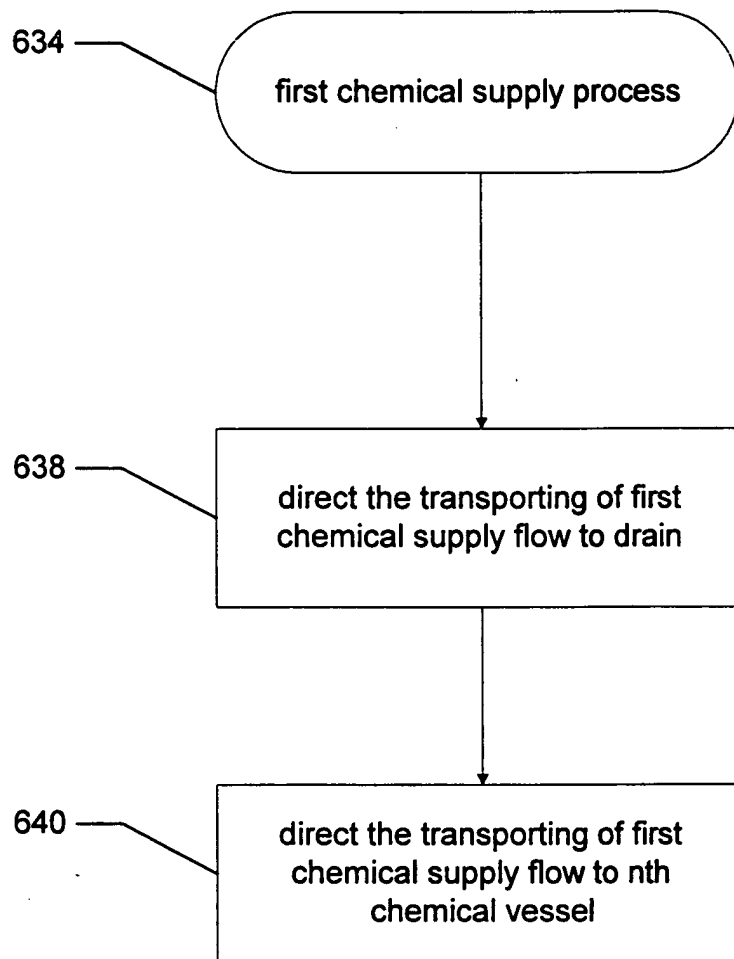


FIG. 17

642

**nth attribute control output
calculation process**

644

subtract nth sample attribute value
from nth attribute setpoint value to
determine nth attribute error value

646

is nth attribute
error value > nth attribute
dead band value?

-No-

```
set nth attribute
control response time
= 0
```

648

Yes

650

is nth attribute
error value > 0?

-No-

calculate nth attribute
control response time
from nth attribute error
value and nth attribute
control constant

652

Yes

654

calculate nth attribute control
response time from nth attribute
error value and nth attribute control
constant

658

```

    proceed to increase nth bulk
    attribute value process

```

```

    proceed to decrease
nth bulk attribute value
process

```

656

FIG. 18

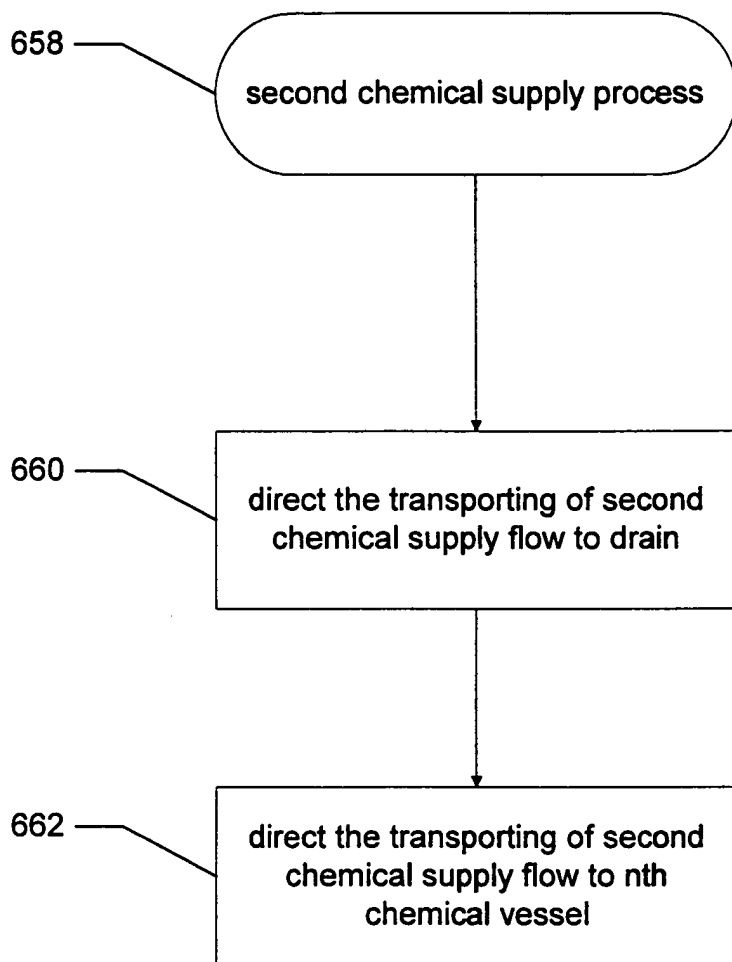


FIG. 19

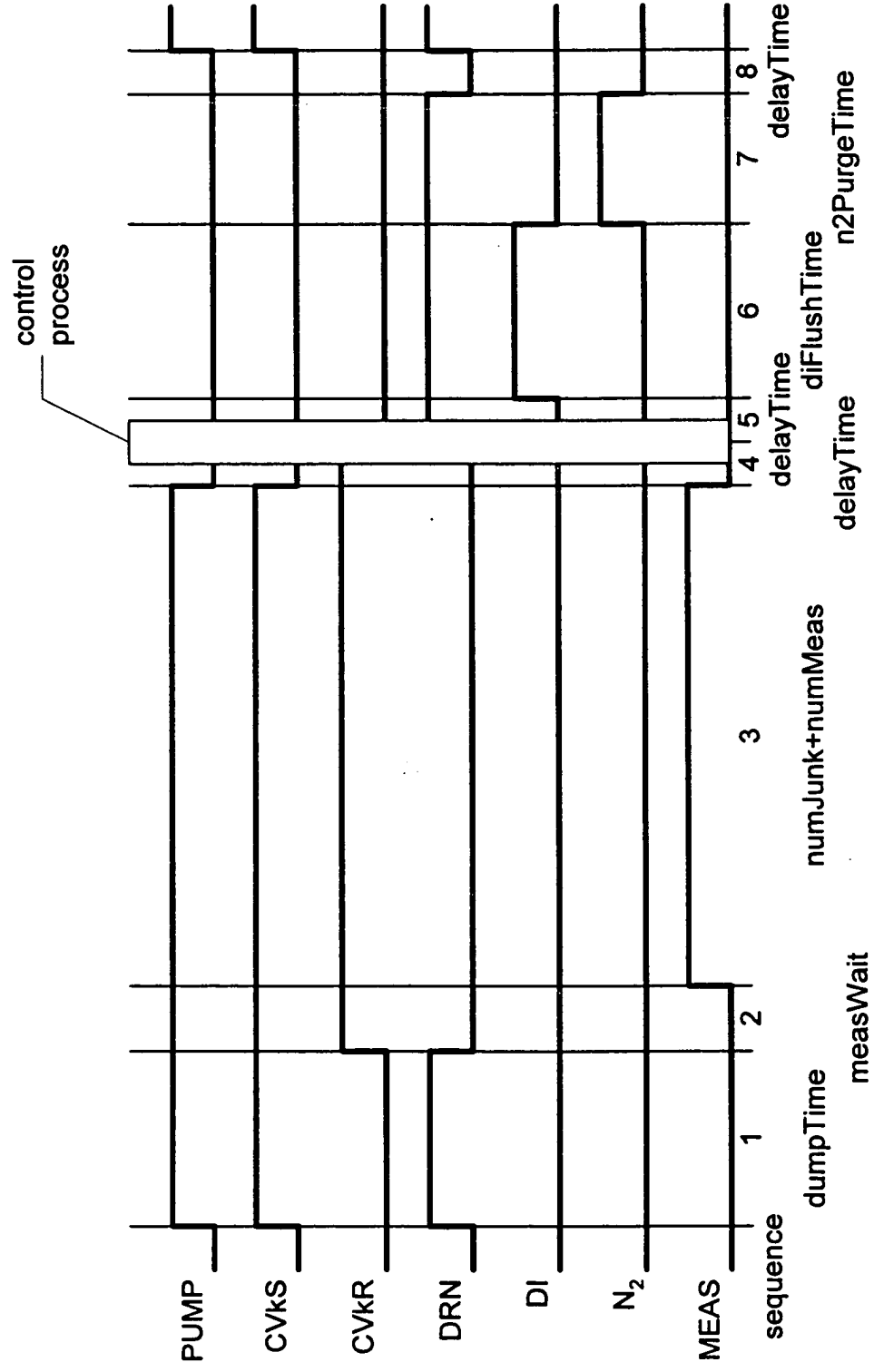


FIG. 20

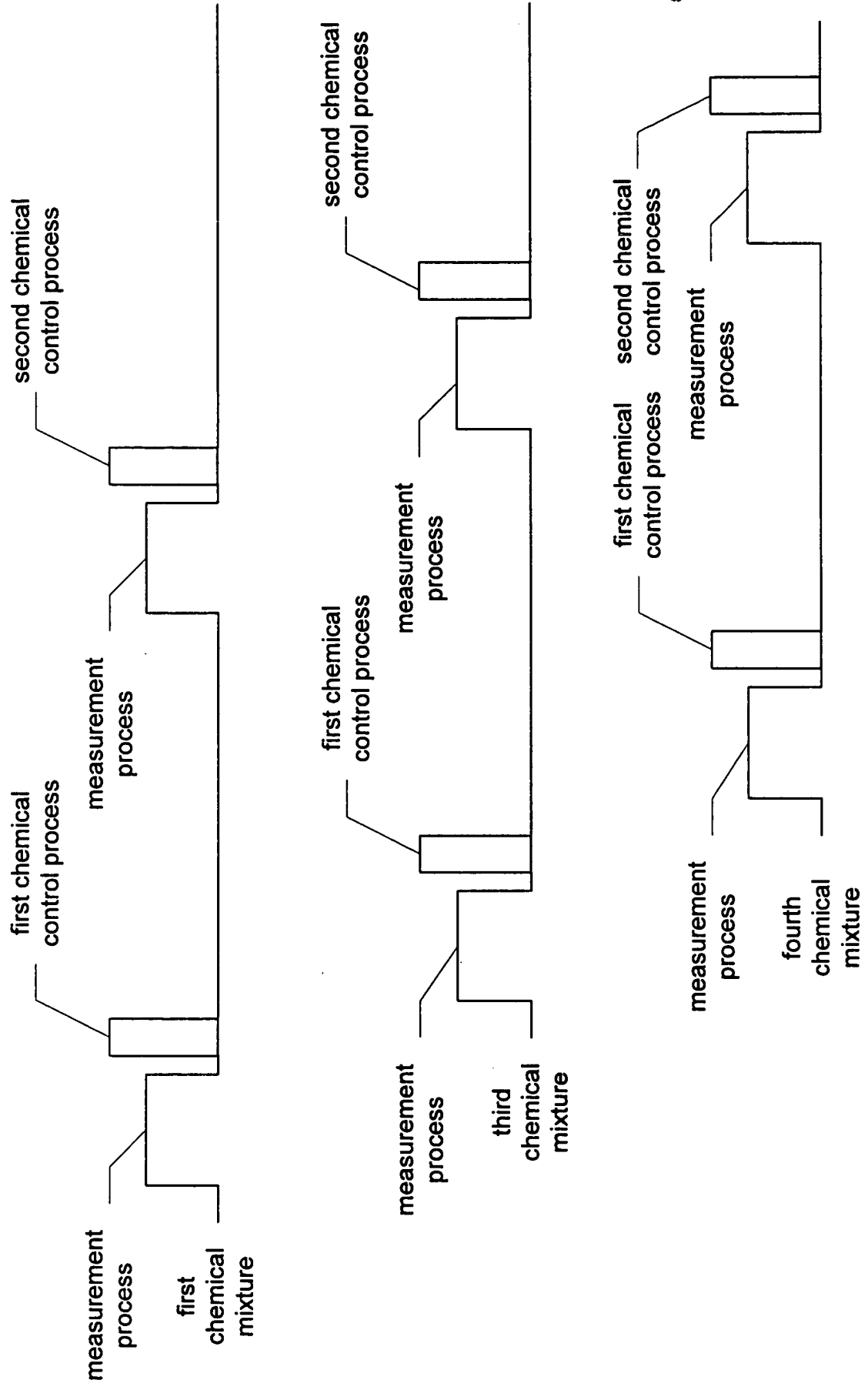


FIG. 21

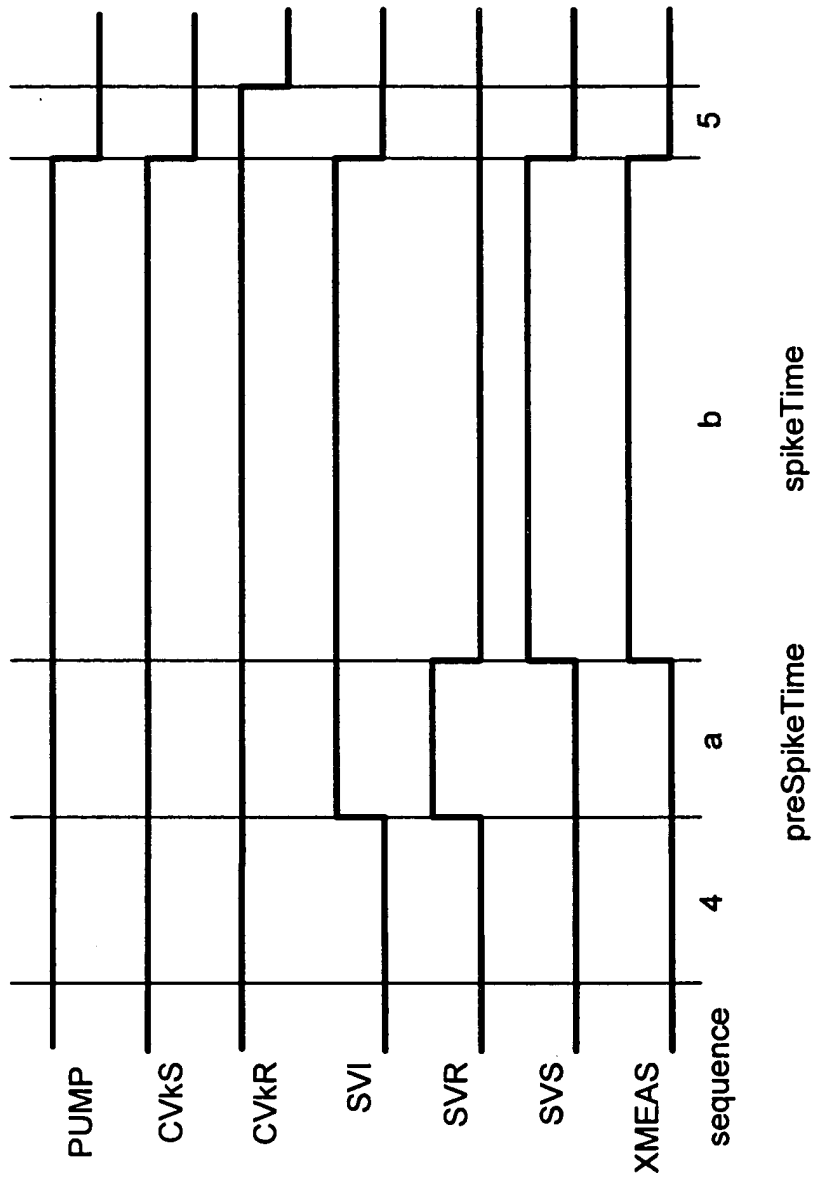


FIG. 22